

00-2-013

Patent

Amendment to the Claims

1. (currently amended) A molybdenum-copper composite powder comprising individual finite particles each having a copper phase and a molybdenum phase, the individual finite particles further having a sintered molybdenum network wherein the voids in the network are filled with copper and ~~wherein~~ the molybdenum phase substantially encapsulates the copper phase.

2. (original) The composite powder of claim 1 wherein the individual particles have a size of about 0.5 μm to about 1.5 μm .

3. (original) The composite powder of claim 2 wherein the composite powder comprises agglomerates of the finite particles.

4. (original) The composite powder of claim 3 wherein the agglomerates have a size of about 15 μm to about 25 μm .

5. (original) The composite powder of claim 1 wherein the powder contains from about 2 wt.% to about 40 wt.% copper.

Claim 6 (canceled).

7. (currently amended) The composite powder of claim ~~6~~1 wherein the powder has the color of unalloyed molybdenum powder.

Claims 8-17 (canceled).

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18. (original) A method of making a Mo-Cu composite powder comprising:

(a) reducing a CuMoO_4 -based composite oxide powder in a first stage to form an intimate mixture of metallic copper and molybdenum oxides without the formation of low-melting-point cuprous molybdate phases; and

(b) reducing the intimate mixture in a second stage at a temperature and for a time sufficient to reduce the molybdenum oxides to molybdenum metal.

19. (original) The method of claim 18 wherein the first stage reduction is performed at a temperature from about 250°C to about 400°C .

20. (original) The method of claim 19 wherein the second stage reduction is performed at a temperature from about 700°C to about 950°C .

21. (original) The method of claim 18 wherein the low-melting-point cuprous molybdate phases are $\text{Cu}_6\text{Mo}_4\text{O}_{15}$ and $\text{Cu}_2\text{Mo}_3\text{O}_{10}$.

22. (original) The method of claim 18 wherein the Mo-Cu composite powder is passivated in nitrogen after the second stage reduction.

Claims 23-28 (canceled).